

Internship Posting Date: September 2, 2008  
Internship ID #: 08010



Intern Application Deadline: Open Until Project Completion

## New Jersey Department of Environmental Protection Internship Opportunity

Internship: ☒ Summer ☒ Fall Semester ☐ Winter Break ☒ Spring Semester

Internship Type: ☐ Co-op\* ☒ Credit-Bearing\* ☐ Non-credit

Internship Pay: ☒ Non- Paid ☐ Paid Pay Rate:

Intern Level: ☒ Graduate School ☒ Undergraduate ☐ High School

Suggested Background or Knowledge: Environmental Engineering, Environmental Science, Physical Sciences, Biology; All interns MUST have strong knowledge, skills and ability to use GIS

DEP Program Area and Work Unit Offering the Internship: Division of Watershed Management – Bureau of Watershed Planning (DWM - BWP)

Internship Location: 401 East State Street, Trenton, NJ 08625

Internship Project Description:

### **GIS Interactive Mapping Project:**

A statewide GIS project to develop a dynamic interactive mapping system for each of the State's twenty watershed management areas (WMA's).

The project would be designed to portray and showcase all Federally-funded 319(h) and State-funded CBT (Corporate Business Tax) planning, restoration and implementation projects that have been either been completed or are underway. The base map would have to include a standard set of data layers from the department's GIS system. The basis for the interactive project could be tailored from a mapping project that was recently completed by the State's GIS Program staff for WMA 13, the Barnegat Bay Watershed. Additional sources that can assist in the design are the "Surf Your Watershed Project" that was completed for the Long Swamp Creek and the New Jersey Boaters Pumpout Guide that was most recently updated in 2006.

The objective would be to build an interactive map that would enable the users to visually see a map and key features of the respective WMA that contains icons and associated attribute tables throughout the watershed that will link the user to all documents (plans, aerial photos, pre-post photos). The system would have to be dynamic so as to allow the department to update the status of each project and attach additional information, documents, photos as projects are completed or additional information is obtained. The project would enable outside public users and internal users to access information on projects to assist in showcasing success stories and allowing watershed partners to surf their own watershed thereby assisting the Division in its efforts to implement approved plans and restore impaired waterways.

\* Co-op and Credit-Bearing Internships require approval of the internship by the student's Academic Department. The DEP Internship Sponsor has agreed to work with the student's Academic Department to provide a credit-worthy learning environment that benefits DEP goals. The student is responsible for all costs associated with receiving the credits from their educational institution.

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Intern Duties would include:

- Utilize GIS to create a layer/shapefile
- Depict and verify location of 319 (h) and CBT-funded projects
- Compile and enter data needed and build attribute tables with assigned staff
- Limited field work maybe required with area managers and watershed partners
- Coordinate project with key departmental GIS staff

Estimated Project Duration and Suggested Weekly Work Schedule: Flexible – Commensurate w/ 3 or 4 credits

Internship Learning Objectives / Marketable Skills: ability to apply GIS skills to a major statewide project and gain valuable knowledge of the state's watershed management areas and water quality problems

Description of DEP Program Area/Work Unit Offering the Internship:

**Division of Watershed Management:** The goal of the Division of Watershed Management (DWM) is nonpoint source (NPS) pollution control and comprehensive water resource management on a watershed basis. Towards that end, the DWM follows two paths. The first path is a rule approach for preventing water quality degradation, which employs regulations to achieve its goal. The second path is an action approach to remedy existing water quality problems, employing Total Maximum Daily Load (TMDL) determinations, NPS control (319) projects, and stream restoration efforts.

**The Bureau of Watershed Planning** consolidates the voluntary watershed partnership aspects of the DWM, focusing on the development of watershed restoration and protection plans that provide a specific blueprint for the restoration and protection of a waterbody, and the implementation of specific projects identified in these plans that will achieve water quality improvements. The functions of this bureau include: the provision of technical support to independent watershed organizations, associations and local and county government units; the administration of federal NPS control pass-through grant programs and State CBT-funded (Corporate Business Tax Revenue) grants-in-aid; and the promotion of voluntary implementation of Department of Environmental Protection (DEP) initiatives such as TMDLs, source water protection, and septic management plans.

Internship Hiring Contact: Rebecca Jones (609) 984-4423, [Rebecca.jones@dep.state.nj.us](mailto:Rebecca.jones@dep.state.nj.us)

Internship Sponsor: Bob Mancini, Section Chief or David McPartland, Principal Environmental Specialist

**\*For credit-bearing internships only:** Sponsor Phone Number and Email: (609) 633-3812  
[bob.mancini@dep.state.nj.us](mailto:bob.mancini@dep.state.nj.us) or [david.mcpartland@dep.state.nj.us](mailto:david.mcpartland@dep.state.nj.us)

**Please Respond With a Completed Application Form, Resume, and Cover Letter to:**

New Jersey Department of Environmental Protection / Division of Human Resources  
P.O. Box 408 / Trenton, NJ 08625  
Attn: Internship Program  
Email Address: [Rebecca.Jones@dep.state.nj.us](mailto:Rebecca.Jones@dep.state.nj.us)

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